

Divide, 600–1,500 m elevation; infrequent in southeastern Costa Rica on the Pacific slope below 400 m elevation.

Specimens Examined: PANAMA. Bocas del Toro: Fortuna, *T. Croat & M. Grayum 60214* (MO). Veraguas: Santa Fe, *B. Hammel 4722* (MO); *G. McPherson 7156* (MO); *T. Antonio 2968*. Coclé: El Copé, *B. Hammel 2388* (MO); El Valle, *D. R. & M. A. Hodel 740A* (holotype, BH; isotype, PMA), *740B* (BH, PMA). Colón; Cerro Bruja, *B. Hammel 3121* (MO). COSTA RICA. San José: Alfombra, *W. Burger & R. Baker 10122* (CR). Limón: Río Segundo, Asuncion, *L. Gómez & G. Herrera 23486* (CR). Puntarenas: Osa Peninsula, *H. Kennedy 1927* (MO); *M. Grayum 4050, 4051* (MO). CULTIVATED. United States. California: Los Angeles, in greenhouse, *D. R. Hodel 854, 855* (BH), originally collected from the type locality. Costa Rica. Puntarenas: San Vito de Coto Brus, JBRCW, *D. R. & M. A. Hodel 626A, 626B* (BH), originally collected at the type locality.

The name honors Pauleen Sullivan and her late husband Joe who have encouraged and supported Hodel's interest and work on palms.

Chamaedorea sullivaniorum occurs in dense, wet forest, mainly on the Atlantic slope in western Panama and eastern Costa Rica. There is a report of it occurring in San Blas in eastern Panama but this has not been verified. Where the Continental Divide is low enough, as at El Valle, Panama, *C. sullivaniorum* may occur just over it on the Pacific slope. In southeastern Costa Rica, disjunct and isolated populations occur on the Osa Peninsula below 400 m elevation.

At the type locality in Panama, *C. sullivaniorum* is very localized and never widespread. There it occurs in dense, dark forest often on the sides or bottoms of steep ravines although we also found it in more open forest along rounded ridge tops. It grows with *C. amabilis* and *C. allenii* among others. During one visit to the type

locality in April, 1987, the leaf litter on the forest floor was actually dusty dry. Several months later in December, the leaf litter was spongy wet.

Chamaedorea sullivaniorum is similar to *C. pumila* but can be distinguished by the blades incised at the apex only about one-third, rather than one-half, their length and with 15, rather than 10–12, nerves on each side of the rachis; the staminate flowers with thin, rather than thick and fleshy, petals; the pistillode basally globose and narrowly attenuate apically rather than \pm columnar; and the pistillate flowers with the pistil having a depression at the apex in which the stigmas are situated. It can be distinguished from *C. robertii* by the branched, rather than spicate, staminate inflorescences; the greenish-yellow, rather than white, staminate flowers; the greenish, rather than yellow, pistillate flowers; and the blade with the margins serrate rather than dentate and not deeply bifid at the apex.

A striking plant to see in the wild because of its thick, leathery, heavily nerved, simple leaves only shallowly bifid at the apex, *C. sullivaniorum* is a handsome ornamental that exhibits a fairly wide range of foliar variation, especially in the length of the blade and petiole. In higher light, the crown is a rosette of 10–15 (Fig. 10), stiffish leaves with short petioles. In extremely low light, the crown contains fewer, softer, larger leaves with longer petioles (Fig. 12). It is highly sought after by collectors and hobbyists who, in some instances, have completely decimated local populations (see letter to the editor by D. R. Hodel, *Principes* 32(3): 95, 1988).

Chamaedorea pedunculata D. R. Hodel & N. W. Uhl. **sp. nov.** (Figs. 13,14).

Subgeneris *Chamaedoreae* Mart. ex H. A. Wendl. *C. macrospadici* Oerst. affinis sed segmentis late rhombicis-lanceolatis, floribus masculis rhombicis depressis dif-



14. Pistillate inflorescence (right), staminate inflorescence (left), and leaf (middle) of *Chamaedorea pedunculata*, D. R. & M. A. Hodel 708A, 708B.

fert. Typus: D. R. & M. A. Hodel 708A (holotypus, BH; isotypus, CR).

Stem solitary, erect or decumbent, to 2–3 m tall, 2.5 cm diam., green, ringed, internodes 7.5 cm long.

Leaves 4–6 (Fig. 13), erect-spreading, pinnate; sheath 25 cm long, splitting opposite the petiole and obliquely long-open, tubular only in the basal half; petiole 30–35 cm long, green and slightly grooved adaxially, rounded and pale-banded abaxially; rachis 1 m long, slender and attenuate toward the apex, green and sharply angled adaxially, green and rounded abaxially; pinnae 4–8 on each side of the rachis, regularly arranged, opposite or subopposite, broadly rhombic-lanceolate, slightly sigmoid, somewhat cupped downward, lower middle the largest, these to 35–37 × 12–13 cm, becoming progressively smaller toward the apex of the rachis, long-acuminate with drooping apices, narrowly contracted at the base with 8–10 nerves,

these not very prominent adaxially, more prominent with an equal number of secondary nerves abaxially.

Inflorescences interfoliar, erect, becoming horizontal in fruit or flower, long-pedunculate (Fig. 13); peduncle to 1 m long or slightly more, 2–2.5 cm wide at the base, 1 cm wide at the apex, green or pale in flower, orange in fruit; bracts 7–8, tightly sheathing, obliquely open apically, drying brown at anthesis; rachis 6–10 cm long, green in flower, red-orange in fruit. Staminate inflorescence with 20 rachillae, these to 30 cm long, slender, pendulous, green. Pistillate inflorescence with 12–15 rachillae, these to 20–25 cm long, spreading, greenish-yellow at anthesis, red-orange in fruit.

Staminate flowers arranged in fairly dense spirals but not contiguous in bud, depressed-diamond-shaped, 3 × 2.5 mm, greenish-yellow; calyx low, green; corolla with petals connate at the tips and there adnate to the pistillode and opening by lateral slits, yellow-green, petals longitudinally striate-nerved. Pistillate flowers not known. Fruits black, obovoid-globose, 7–8 mm long.

Distribution: COSTA RICA. Puntarenas. Dense, wet forest on the Pacific slope, 1,000 m elevation. Probably endemic.

Specimens Examined: COSTA RICA. Puntarenas: San Vito de Coto Brus, forest remnants adjacent to JBRCW, D. R. & M. A. Hodel 708A (holotype, BH; isotype, CR), 708B (BH); H. E. Moore Jr. 10507 (BH).

The epithet refers to the long, conspicuous peduncle of this species.

Chamaedorea pedunculata is similar to *C. macrospadix* but can be distinguished by the broadly rhombic-lanceolate, rather than long-lanceolate, pinnae and the depressed-diamond-shaped, rather than ovoid, staminate flowers. Collected only at the type locality, *C. pedunculata* is uncommon in forest remnants near JBRCW where it grows with *C. warscewiczii*, *C. cruceensis*, and *C. brachyclada*.